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| ANWAH, OLISA | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2614 | |

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/621,715 | PARTOVI ET AL. | |
| | Examiner | Art Unit | |
| | Olisa Anwah | 2614 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *16 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) *1-11,13,14,27,28 and 36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12,15-26,29-35 and 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 12, 15-26, 29-35 and 37 are rejected under 35 U.S.C § 103(a) as being unpatentable over Brotman et al, U.S. Patent No. 5,917,889 (hereinafter Brotman) in view of McAllister et al, U.S. Patent No. 6,421,672 (hereinafter McAllister).

Regarding claim 12, Brotman discloses in a voice response system having a telephone interface, a method of interpreting input comprising:

receiving a dual tone multi-frequency (DTMF) key sequence over the telephone interface;

determining a constrained recognition grammar to recognize a set of utterances, wherein each utterance of the set has an associated alphanumeric string identifier that maps to a DTMF sequence that is equivalent to the DTMF key sequence;

playing a first audio message over the telephone interface to solicit a voice input;

in response to receiving the voice input over the telephone interface, processing the voice input using the constrained recognition grammar to determine a matching element of the set; and

playing a second audio message corresponding to the matching element (see Figure 2).

Further regarding claim 12, Brotman fails to teach determining an order associated with the set of utterances based on a weighting factor, wherein the first audio message comprises the set of utterances in the determined order. All the same, McAllister discloses these limitations (see columns 3 and 4). As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brotman with the fuzzy logic of McAllister. This modification would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or identical primary search keys as suggested by McAllister (see column 2).

Regarding claim 15, Brotman does not disclose the weighting factor comprises a probability or likelihood that an utterance will be selected. All the same, McAllister discloses this feature (see column 4). As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brotman with the fuzzy logic of McAllister. This modification would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or identical primary search keys as suggested by McAllister (see column 2).

Regarding claim 16, Brotman does not disclose the weighting factor comprises access frequency associated with each of the set of utterances. All the same, McAllister discloses this feature (see column 4). As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brotman with the fuzzy logic of McAllister. This modification would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or identical primary search keys as suggested by McAllister (see column 2).

Regarding claim 17, see Figure 2 of Brotman.

Regarding claim 18, see Figure 2 of Brotman.

Regarding claim 19, Brotman does not disclose favoring a more frequently selected element of the set over less frequently selected elements of the set when determining the matching element. All the same, McAllister discloses this feature (see column 4). As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brotman with the fuzzy logic of McAllister. This modification would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or identical primary search keys as suggested by McAllister (see column 2).

Regarding claim 20, see column 4 of Brotman.

Regarding claim 21, Brotman discloses a system, comprising:

means for receiving input from a caller, the input corresponding to input from a keypad;

means for identifying a plurality of matches corresponding to the input;

means for identifying at least one grammar associated with the plurality of matches;

means for receiving a voice input from the caller;

means for processing the voice input using the at least one grammar to identify a first one of the plurality of matches; and

means for playing an audio message corresponding to the first match.

Further regarding claim 21, Brotman fails to teach means for determining an order associated with the plurality of matches based on a weighting factor and a means for playing the plurality of matches to the caller in the determined order. All the same, McAllister discloses these limitations (see columns 3 and 4). As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brotman with the fuzzy logic of McAllister. This modification would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or identical primary search keys as suggested by McAllister (see column 2).

Regarding claim 22, see Figure 2 of Brotman.

Regarding claim 23, see Figure 2 of Brotman.

Regarding claim 24, Brotman does not disclose means for favoring a more frequently selected one of the plurality of matches. All the same, McAllister discloses this feature (see column 4). As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brotman with the fuzzy logic of McAllister. This modification would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or identical primary search keys as suggested by McAllister (see column 2).

Regarding claim 25, Brotman discloses a system, comprising:

a voice portal configured to:

receive input from a caller using a keypad;

identify a plurality of matches corresponding to the input;

identify at least one grammar associated with the plurality of matches,

play a first audio message to the caller,

receive a voice input from the caller, and

identify a first one of the plurality of matches based on the voice input using the at least one grammar (see Figure 2).

Further regarding claim 25, Brotman fails to disclose the voice portal is configured to determine an order associated with the plurality of matches based on a weighting factor, wherein the first audio message comprises the plurality of matches in the determined order. All the same, McAllister discloses these limitations (see columns 3 and 4). As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brotman with the fuzzy logic of McAllister. This modification would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or identical primary search keys as suggested by McAllister (see column 2).

Regarding claim 26, see Figure 2 of Brotman.

Claim 29 is rejected for the same reasons as claim 15.

Regarding claim 30, see Figure 2 of Brotman.

Regarding claim 31, see Figure 2 of Brotman.

Claim 32 is rejected for the same reasons as claim 19.

Regarding claim 33, see Figure 2 of Brotman.

As per claim 34, see column 4 of Brotman.

Regarding claim 35, Brotman discloses a method, comprising:

receiving input from a caller using a keypad;

identifying a plurality of matches corresponding to the input;

identifying at least one grammar tailored to recognize words associated with the plurality of matches;

playing an audio message to the caller;

receiving a voice input from the caller;

identifying a first one of a plurality of matches based on the voice input using the at least one grammar; and

providing information associated with the first match to the caller (see Figure 2).

Further regarding claim 35, Brotman fails to indicate the audio message comprises the plurality of matches played in an order based on a weighting factor. All the same, McAllister discloses this limitation (see columns 3 and 4). As a result, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Brotman with the fuzzy logic of McAllister. This modification would have improved the convenience of Brotman by providing a search engine that can resolve ambiguities resulting from records having similar or

identical primary search keys as suggested by McAllister (see column 2).

Regarding claim 37, see Figure 2 of Brotman.

***Response to Arguments***

3. In response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). More specifically, Brotman teaches that each utterance in the set has an alphanumeric string identifier that maps to a DTMF key sequence received over a telephone interface (see Figure 2). Additionally, McAllister shows the audio message comprises the set of utterances (see columns 3 and 4). Consequently, the combination of Brotman and McAllister teaches the claimed limitations as presently claimed.

In response to Applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account

only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

***Citation of Pertinent Art***

4. The Examiner submits that Brotman et al, U.S. Patent No. 6,236,967 discloses playing an audio message over the telephone interface, wherein the audio message comprises the set of utterances (see column 7).

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened

statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olisa Anwah whose telephone number is 571-272-7533. The examiner can normally be reached on Monday to Friday from 8.30 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on 571-272-7547. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

O.A.

Olisa Anwah
Patent Examiner
November 17, 2006

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SUPERVISORY PATENT EXAMINER
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